

## ABSTRACT

The disclosed invention is a method for the production of a universal decontaminant solution comprised of at least one oxidant and halide salt for neutralizing chemical toxicants that include organosulfur and organophosphorus-containing compounds, such as those found as pesticides, herbicides, or chemical warfare agents, as well as providing disinfection capability against viruses, bacteria, spores, fungi, toxins, and those classified as biological warfare agents. The overall generation and application of the decontaminant solution creates an unexpected synergistic effect toward rates of detoxification, whereas in most cases where the same oxidants were used individually, the same result would not be achieved. A method for the *in situ* generation of hypochlorite by a monopersulfate compound and alkali metal chloride salt is also described.